

# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Serial No.:

10/648,778

Filed:

Aug. 25, 2003

Group Art Unit:

2617

Confirmation No.:

4032

Examiner:

Marcos L. Torres

Mail Stop AF Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

# PRE-APPEAL BRIEF REQUEST FOR REVIEW

Sir:

In response to the final Office Action of October 13, 2010, please reconsider the rejections in view of the following remarks:

\*\*\*If any fee and/or extension is required in addition to any enclosed herewith, please charge Account No. 23-0442.

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#### **REMARKS**

Claims 1-28 and 30-43 were examined by the Office, and in the final Office Action of October 13, 2010 all claims are rejected. With this response, no claims are amended, added or cancelled. Applicant respectfully submits that the Office has committed clear error in rejecting the claims, because the Office has failed to show that the cited references, alone or in combination, disclose all of the limitations recited in the claims. Accordingly, applicant respectfully requests reconsideration and withdrawal of the rejections in view of the following discussion.

This response is submitted along with a Notice of Appeal.

## Claim Rejections Under §103

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In section 9, on page 5 of the Office Action, claims 1-5, 10-16, 19-21, 26-28, 30-40 and 42-43 are rejected under 35 U.S.C. § 103(a) as being unpatentable over 3GPP; Technical Specification Group Radio Access Network; Feasibility Study for Enhanced Uplink for UTRA FDD; (R. 6) 3GPP TR 25.896 V0.3.2. (hereinafter TR 25.896) in view of Souissi (U.S. Appl. Publ. No. 2002/0075941). Applicant respectfully submits that claim 1 is not disclosed or suggested by the cited references, because the cited references, alone or in combination, fail to disclose or suggest all of the limitations recited in claim 1. The cited references at least fail to disclose or suggest signaling in the uplink information indicating one of the cells as a scheduling cell, each Node B receiving the uplink indicating one of the cells as the scheduling cell, and each Node B determining whether the Node B is in control of the scheduling cell, as recited in claim 1. For at least these reasons, claim 1 is not disclosed or suggested by the cited references.

The Office asserts on page 5 of the Office Action that 3GPP TR 25.896 discloses that each Node B receives the uplink indicating one of the cells as a scheduling cell. However, applicant respectfully disagrees that 3GPP TR 25.896 discloses that each Node B receives the uplink indicating one of the cells as a scheduling cell. 3GPP TR 25.896 only states that in the case there are multiple controlling Node Bs, the UE selects a resource assignment or combines resource assignments. There is no disclosure or suggestion about signaling a selection of a controlling Node B back to each of the Node Bs receiving that signaling. Instead, 3GPP TR 25.896 merely discusses that when more than one Node B control the cells present in the UE active set, there are several alternatives as to the location of the scheduling entity which controls the UE. See 3GPP TR 25.896 § 7.1.3. The alternatives in 3GPP TR 25.896 merely discuss which Node B is defined as the scheduling entity for the UE, but there is no disclose or suggestion that each Node B receive the uplink indicating which one is defined as the scheduling entity, as recited in claim 1. Furthermore, in 3GPP TR 25.896 when multiple Node Bs are identified as valid

controlling entities the UE may either choose a scheduling assignment or combine the scheduling assignments. See 3GPP TR 25.896 § 7.1.3. However, there is no disclosure or suggestion in 3GPP TR 25.896 that each Node B receives the uplink indicating which one is defined as the scheduling entity, as recited in claim 1. The Office appears to assert in section 2 of the Office Action that all the NodeBs in a transmitted area would receive the signaling, and therefore it would be obvious to let the scheduling cell that is the one in charge and let other NodeBs know not to waste limited resources by issuing commands. However, this proposed modification to 3GPP TR 25.896 appears to be based on applicant's own disclosure and therefore impermissible hindsight reasoning. The Office appears to be modifying 3GPP TR 25.896 in order to conform applicant's own disclosure, and therefore applicant respectfully submits that 3GPP TR 25.896 cannot be modified as suggested by the Office to arrive at the claimed limitations. Therefore, for at least this reason, claim 1 is not disclosed or suggested by 3GPP TR 25.896.

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In addition, the Office appears to also assert that Souissi discloses that each Node B receives the uplink indicating one of the cells as the scheduling cell. However, applicant respectfully disagrees, because in Souissi there is only one node receiving such communication, not a plurality, since the piconet with its master node is established with the first two nodes vying for control. In Souissi, when no picocell is established, two nodes wishing to establish a picocell determine which of the two is to be the master node. See Souissi paragraph [0082]. The first node to transmit is implied to be the master, and the reception of this transmission by the second node then indicates the first node as the master node and the second node as the slave node. Therefore, it is the first node that indicates itself as the master node, because the negotiation is between two cells. See Souissi paragraph [0082]. However, in contrast to Souissi the present application does not teach that the user equipment is a node. Accordingly, the limitation that the user equipment device signaling in an uplink information indicating one of the cells as a scheduling cell does not correspond to a node indicating itself as a master node as in Souissi. In contrast to Souissi, claim 1 states that the user equipment, which is not one of the cells but is a slave to those cells, selects the scheduling cell out of a plurality of cells that have scheduling control over the user equipment. Therefore, claim 1 requires at least a user equipment and two Node Bs, where the user equipment selects among at least two master nodes, i.e. Node Bs. However, Souissi fails to disclose or suggest that a user equipment would select a master node from a plurality of master nodes, not including itself, and signal that selection to those nodes, as recited in claim 1. Furthermore, it is clear from Souissi, which is related to adhoc piconets, that the two devices negotiating for the position of master device are peer devices. Communications between two such devices are therefore not an uplink communication, but peer-to-peer communications. Even if it is asserted that the first master slave transmission creates a de-facto up and downlink in advance of the master-slave establishment, then the

first communication of the first node de-facto establishing itself as the master node over the second node involved in the negotiation would be a downlink communication (master  $\rightarrow$  slave) and not an uplink communication.

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Furthermore, even though Souissi is directed to a plurality of devices, the establishment of the master node is not established among the plurality of devices, but merely negotiated among two devices after which subsequent devices joining the network accept the established master device. See Souissi paragraphs [0051] & [0082]. Therefore, contrary to the assertions of the Office in section 3 of the Office Action, there is no indication to a plurality of devices in establishment of a master device. For example, in Bluetooth frequency hopping is used and therefore the plurality of nodes would need to be synchronized before any such indication could be sent to the plurality of nodes. See Souissi paragraph [0029]. However, as discussed in Souissi, two nodes synchronize on a hopping pattern, establish a piconet with one master and one slave and then other nodes will detect the master and synchronize to the master.

In addition, claim 1 is directed to a method of a user equipment signaling one of a plurality of Node Bs involved in a soft handover as the scheduling cell for the user equipment. Node 25 identifying itself as a master node of a picocell to master node 28 of another picocell does not involve any such process or make such process obvious. It is therefore inappropriate to suggest that the combination of the 3GPP specification and the negotiation of a master cell between two peer nodes or the indentification of a node as being a master node in one picocell to another master node in another picocell would lead one skilled in the art to the combination of a user equipment selecting and signaling which of a plurality of base stations involved in a soft handover is to be the scheduling cell for the user equipment, as recited in the present application.

Furthermore, the present application is directed to solving the problem of a user equipment having multiple base stations controlling the user equipment during a soft handover, which may lead to the user equipment receiving conflicting scheduling information from these base stations to update the UE pointer. However, this problem is not addressed in Souissi. Instead, in Souissi, the addressed issue is how to select a master node between two adhoc peer nodes when none has been selected yet and with reference to Figure 1 how to connect established picocells with nodes being part of multiple piconets and how to avoid data collisions from different nodes. Neither teaching of Souissi can be combined with the 3GPP specification to arrive at the limitations recited in claim 1. Souissi discusses avoiding transmission collisions from different nodes among others when hopping patterns of these nodes overlap, but does not teach or suggest any method of avoiding conflicting scheduling information from multiple master nodes. In particular, Souissi does not disclose or suggest that a node such as node 29 of Figure 1

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that receives scheduling information from two master nodes should signal one of the two master nodes to be the scheduling node and the other master node to stop scheduling for node 29. Since master/slave "scheduling" in Souissi merely refers to synchronization of the hopping pattern, such a teaching would de-facto mean that node 29 would lose synchronization with the master node indicated to stop scheduling, which would teach away from Souissi's objective of avoiding collisions between cells by promoting exchange of hopping sequences between picocells. See Souissi paragraph [0041].

The independent claims rejected above, contain limitations similar to those recited in claim 1. Therefore, for at least the reasons discussed above, the independent claims are not disclosed or suggested by the cited references.

The claims rejected above, and depending from the above mentioned independent claims are not disclosed or suggested at least in view of their dependencies.

In section 10, on page 20 of the Office Action, claims 6-9, 17-18, 22-25 and 41 are rejected under 35 USC §103(a) as being unpatentable over 3GPP; Technical Specification Group Radio Access Network; Feasibility Study for Enhanced Uplink for UTRA FDD; (R. 6) 3GPP TR 25.896 V0.3.2. (hereinafter TR 25.896) in view of Souissi, and in further view of admitted prior art. The rejected claims all ultimately depend from an independent claim, and therefore are not disclosed or suggested by least in view of their dependencies.

## CONCLUSION

It is believed that all of the claims of the application are in condition for allowance and their passage to issue is earnestly solicited. The undersigned hereby authorizes the Commissioner to charge Deposit Account No. 23-0442 for any fee deficiency required to submit this response.

Respectfully submitted,

13 January 2021

Date

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